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Timothy Samuel Girton

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VIDAS, ARRETT & STEINKRAUS, P.A.  
SUITE 400, 6640 SHADY OAK ROAD  
EDEN PRAIRIE, MN 55344

EXAMINER

PATTERSON, MARC A

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**ADVISORY ACTION**  
**WITHDRAWN REJECTIONS**

1. The 35 U.S.C. 102(b) rejection of Claim 31 as being anticipated by Dillon (U.S. Patent No. 4,849,285), of record on page 2 of the previous Action, is withdrawn.

**ANSWERS TO APPLICANT'S AMENDMENTS**

***Claim Rejections – 35 USC § 103(a)***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 21 - 22, 24 and 27 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houser et al (U.S. Patent No. 6,361,559 B1) in view of Clapper (U.S. Patent No. 5,744,515).

With regard to Claims 3, 21, 24 and 27 - 31, Houser et al teach a vascular graft (bypass graft; column 7, lines 3 - 7) that is tubular (column 7, lines 23 - 25) consisting of an extruded composite of materials that are selected from a group including silicone and PTFE (column 7, lines 3 - 7). It therefore would have been obvious for one of ordinary skill in the art to have provided for an extruded composite of silicone and PTFE, as the group disclosed by Houser et al includes silicone and PTFE. Houser et al therefore disclose a composite having discrete domains of the silicone distributed throughout the PTFE that are extractable from the PTFE to create pores and a bulk density of 0.2 and 0.5 g/cc, as stated in paragraph 0035 of the specification,

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therefore permitting tissue ingrowth; Houser et al do not disclose a PTFE that is expanded or that has a node and fibril structure; a non - expanded PTFE having no node and fibril structure is therefore disclosed by Houser et al. Houser et al fail to disclose a composite that is an interpenetrating polymer network

Clapper teaches a room - temperature vulcanizing silicone in the making of a vascular graft for the purpose of obtaining a graft that closely approximates natural vessels (column 5, lines 51 -65). One of ordinary skill in the art would therefore have recognized the advantage of providing for the silicone of Clapper in Houser et al, which comprises vascular graft, depending on the desired similarity to natural vessels of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a room - temperature vulcanizing silicone in Houser et al, therefore an interpenetrating polymer network, because the silicone is crosslinked, in order to obtain a graft that closely approximates natural vessels as taught by Clapper.

With regard to Claim 22, Houser et al fail to disclose a particle size of 5 to 100 microns. However, would therefore be obvious for one of ordinary skill to select particle size, through routine optimization, depending on the desired speed of mixing, as a composite is disclosed by Houser et al.

#### ANSWERS TO APPLICANT'S ARGUMENTS

4. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of Claims 3, 21 - 22, 24 and 27 - 31 as being unpatentable over Houser et al (U.S. Patent No. 6,361,559 B1) in view of

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Clapper (U.S. Patent No. 5,744,515) and 35 U.S.C. 103(a) rejection of Claim 2 as being unpatentable over Houser et al (U.S. Patent No. 6,361,559 B1) in view of Clapper (U.S. Patent No. 5,744,515) and further in view of Chuter (U.S. Patent No. 6,293,969), of record on page 2 of the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 5 of the remarks dated May 4, 2010, that no structure is disclosed by Houser et al and that the previous Action has not shown that a composite of PTFE and the silicone of Clapper necessarily results in an interpenetrating polymer.

However, as stated in the previous Action, the silicone taught by Clapper is vulcanized, therefore crosslinked. Furthermore, Applicant has not defined the phrase ‘interpenetrating network’ to mean something other than a polymer blend in which at least one polymer is crosslinked in the presence of the other components.

Applicant also argues, on page 6, that the claimed invention is not obvious in view of Houser et al because Houser et al discloses five methods of manufacturing, nine materials and a host of composites of these materials, and a finite and small number of options has not been established.

However, because nine materials are disclosed, a small and finite number of composites has been established. Furthermore, five methods of manufacturing constitutes a small number of methods.

Applicant also argues on page 7 that Houser et al fail to disclose the claimed density.

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However, because Houser et al disclose a composite of polytetrafluoroethylene and silicone, a composite that provides the claimed density after extraction is disclosed by Houser et al.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497.

The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/  
Primary Examiner, Art Unit 1782